

BookletChart™

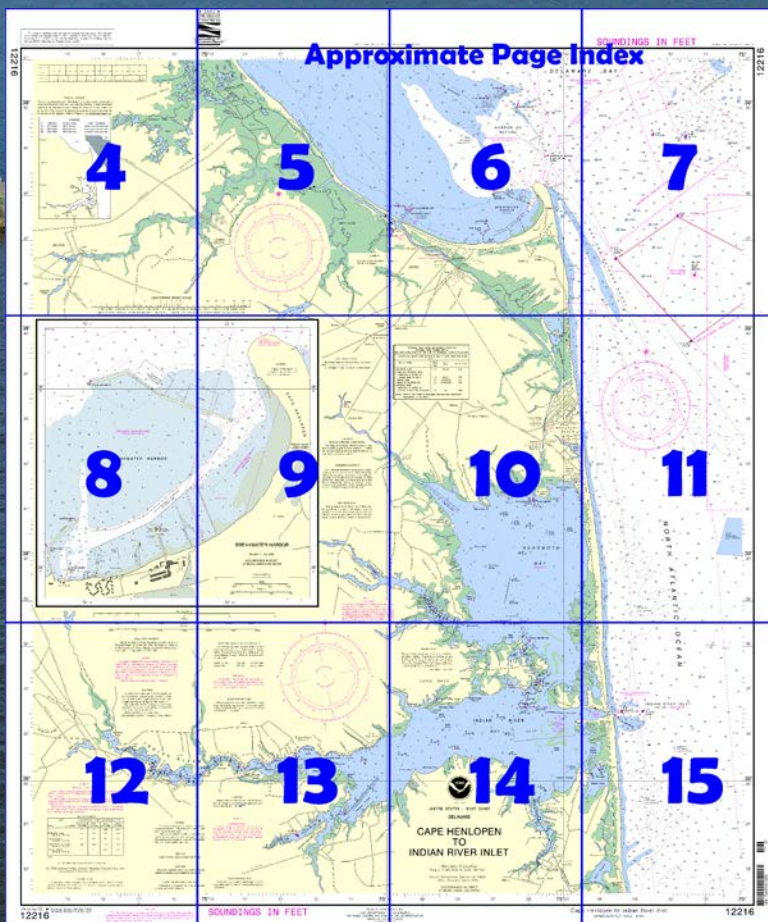
Cape Henlopen to Indian River Inlet NOAA Chart 12216



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12216>



(Selected Excerpts from Coast Pilot)

The Cape May-Lewes Ferry crosses the channel in Delaware Bay northward of Cape Henlopen.

In bad weather small craft anchor behind the breakwaters north and west of Cape Henlopen.

Harbor of Refuge is behind the breakwater that begins 0.7 mile north of Cape Henlopen and extends north-northwestward. **Harbor of Refuge Light**, (38°48.9'N., 75°05.6'W.), 72 feet above the water, is shown from a white

conical tower on a cylindrical substructure near the south end of the breakwater; the station has a fog signal. A light marks the breakwater near its northern end.

The harbor has depths of 17 to 70 feet between the breakwater and a shoal ridge, 8 to 12 feet deep, 1 mile to the southwestward. The entrance from across The Shears has depths of 10 feet or less. Harbor of Refuge affords good protection during easterly gales.

Breakwater Harbor is excellent for light-draft vessels in all weather except heavy northwesterly gales and even then affords considerable protection.

Two channels lead through Breakwater Harbor. The channel from the northeast and the ferry basin had depths of 10 feet. The channel from the north had a depth of 10 feet.

Roosevelt Inlet. The inlet is protected by jetties that are awash at low water; each marked by a light on its outer end. The channel is marked by the jetty lights and a **213°** lighted range. The current velocity is 0.9 knot in Roosevelt Inlet. Gasoline and diesel fuel can be obtained at a yacht club on the northeast side.

Broadkill River is entered by an inside passage that extends 2 miles from the Roosevelt Inlet jetties to the old mouth of the river.

Twin bridges over Broadkill River have a clearance of 18 feet. Above the bridges, the river has numerous snags and much floating debris.

The **Lewes and Rehoboth Canal** extends 8 miles from Roosevelt Inlet to Rehoboth Bay. The entrance to Rehoboth Bay is between marked, submerged, stone jetties southwest of Dewey Beach. The **speed limit** is 4 miles per hour in the canal.

Bridges and cables.—The U.S. Route 9 Business highway bridge over the canal at Lewes has a bascule span with a clearance of 15 feet. The overhead power cable to the west of the bridge has a clearance of 68 feet. The Delaware Coast Line railroad bridge, 0.2 mile southeastward of the highway bridge, has a 46-foot swing span with a clearance of 10 feet; the span remains in the open position except for infrequent passage of trains; the overhead cable at the bridge has a clearance of 68 feet. The U.S. Route 9 fixed highway bridge 100 yards southeastward of the railroad bridge has a 46-foot span with a clearance of 35 feet.

These bridges restrict the normal water flow in the canal and produce very strong currents. Small craft should proceed with caution in these areas.

The State Route 1 Alternate highway bridge over the canal at Rehoboth Beach, 6.5 miles from Roosevelt Inlet, has a 49-foot bascule span with a clearance of 16 feet; the overhead power cables on the north side of the bridge have a least clearance of 55 feet. The State Route 1 fixed highway bridge, 0.3 mile farther southward, has a clearance of 35 feet. The overhead power cables on the north and south side of the bridge have a least clearance of 55 feet. (See **117.1 through 117.59 and 117.239**, chapter 2, for drawbridge regulations.)

A channel leads from Indian River Inlet through Indian River Bay and up Indian River to Millsboro, 12 miles above the inlet. The channel from the entrance to Buoy 20 in Indian River Bay is subject to continual change due to severe shoaling. The channel is marked by uncharted buoys that are frequently shifted to mark the best water. The channel to Millsboro is marked by daybeacons and seasonal buoys.

Currents.—The current velocity is about 2 knots; caution is necessary, because the buoys sometimes tow under.

The fixed highway bridge over Indian River Inlet has a clearance of 35 feet for a midwidth of 100 feet or 32 feet for a width of 200 feet. The stub ends of a former drawbridge, now used as fishing piers, are close westward of the bridge. An overhead power cable with a clearance of 66 feet crosses the inlet about 100 yards westward of the bridge.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Norfolk

Commander

5th CG District

Norfolk, VA

(575) 398-6231

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

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NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

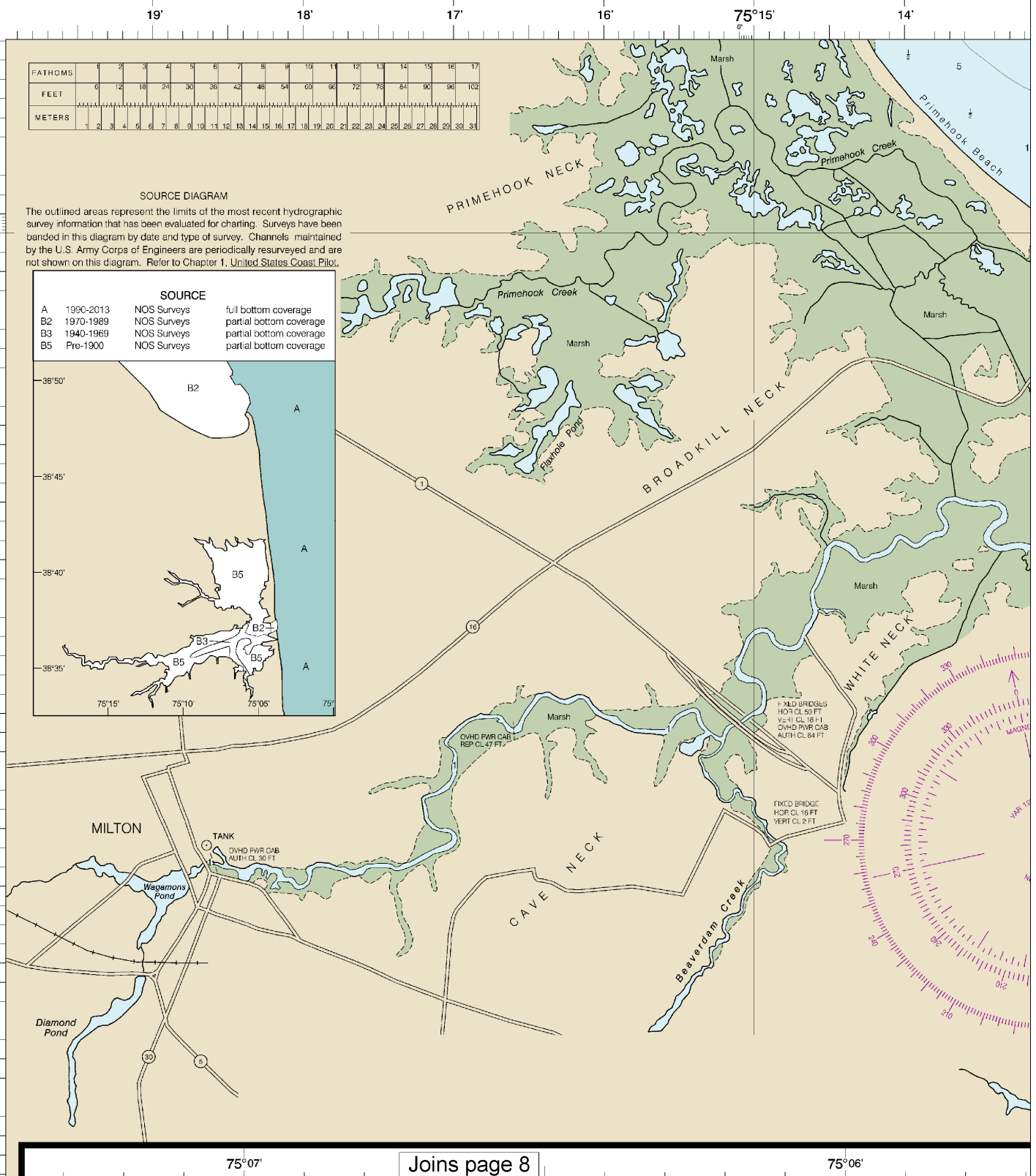
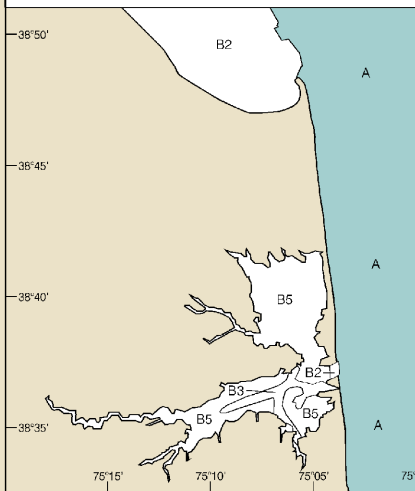
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FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE

A	1990-2013	NOS Surveys	full bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage
B3	1940-1969	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage



Joins page 8

4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

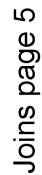
See Note on page 5.



5

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:53333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

Formerly C&GS 411, 1st Ed., Jan. 1954 KAPP 555



Joins page 10

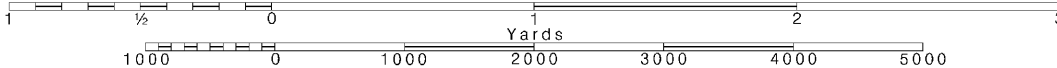
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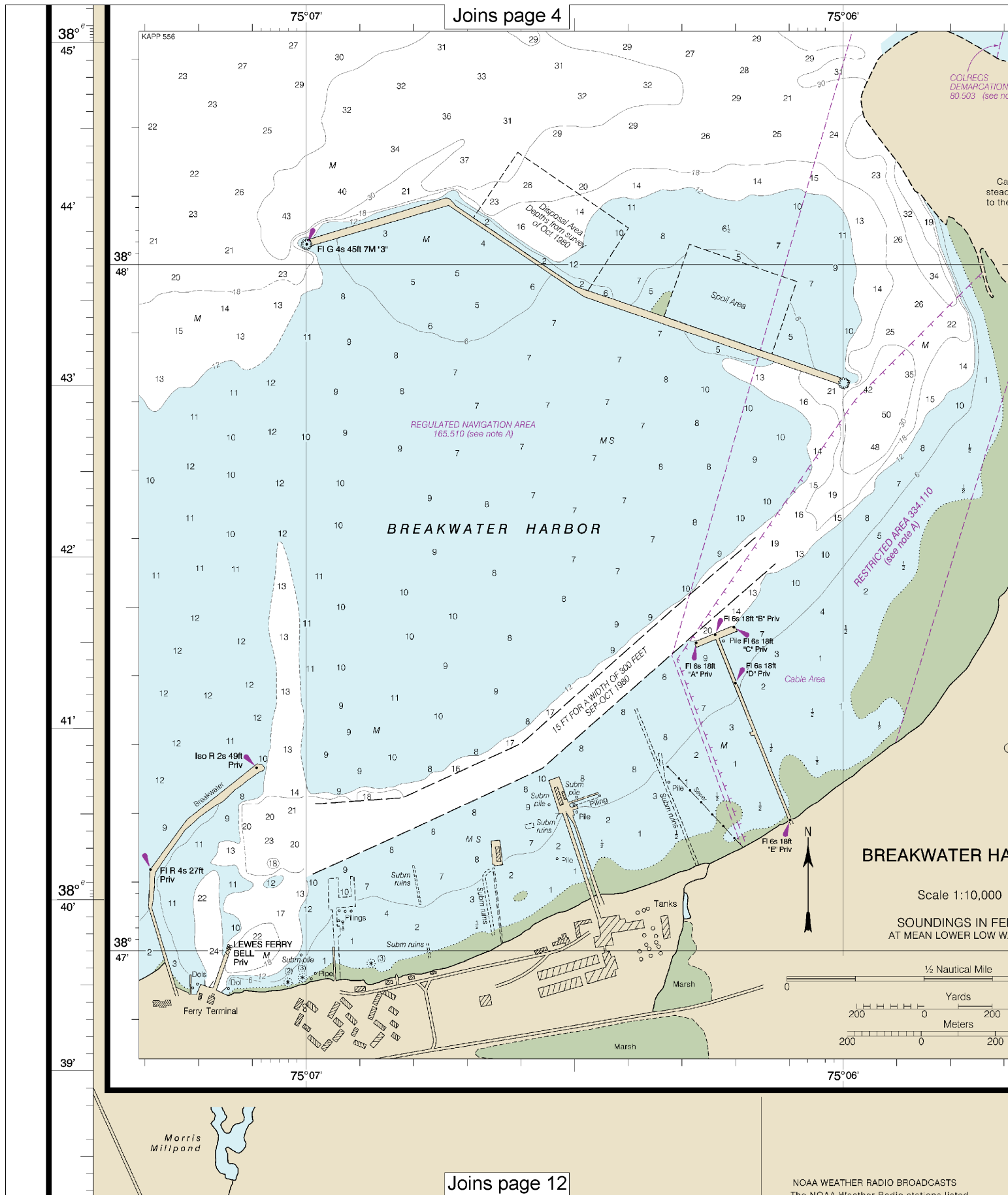
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Nautical Miles

See Note on page 5.

Note: Chart grid lines are aligned with true north.

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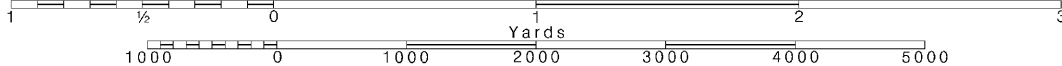
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Note: Chart grid lines are aligned with true north.

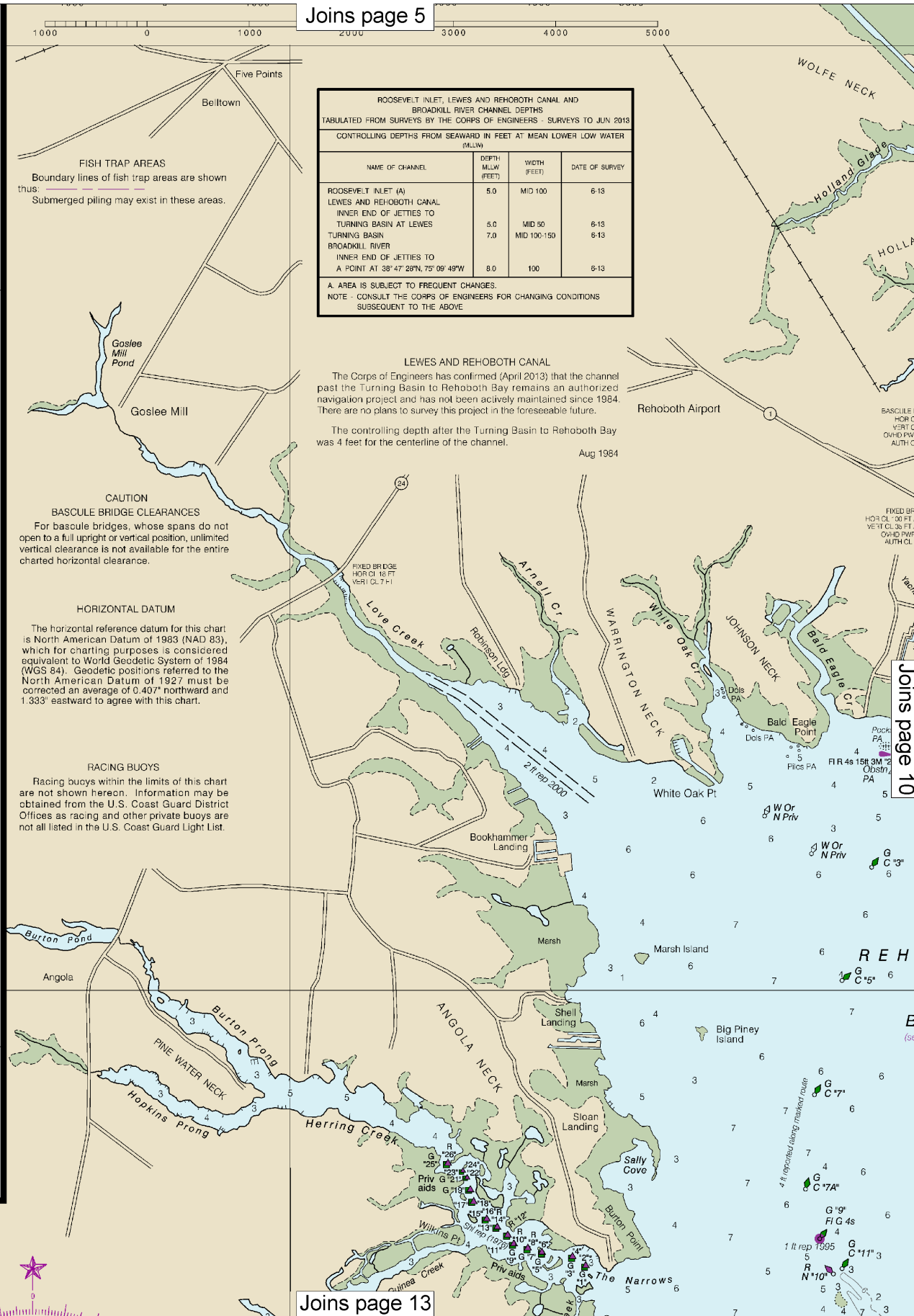
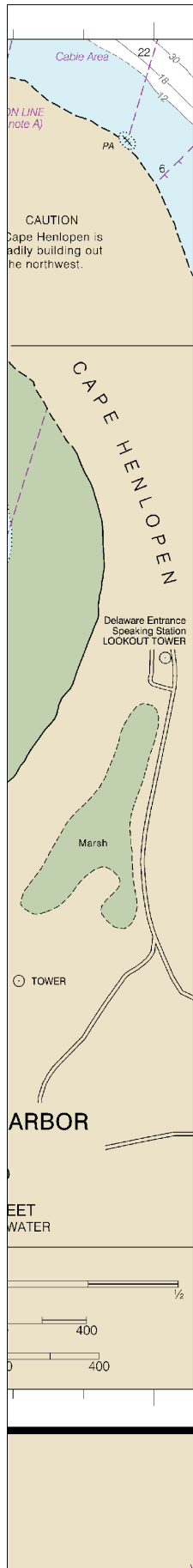
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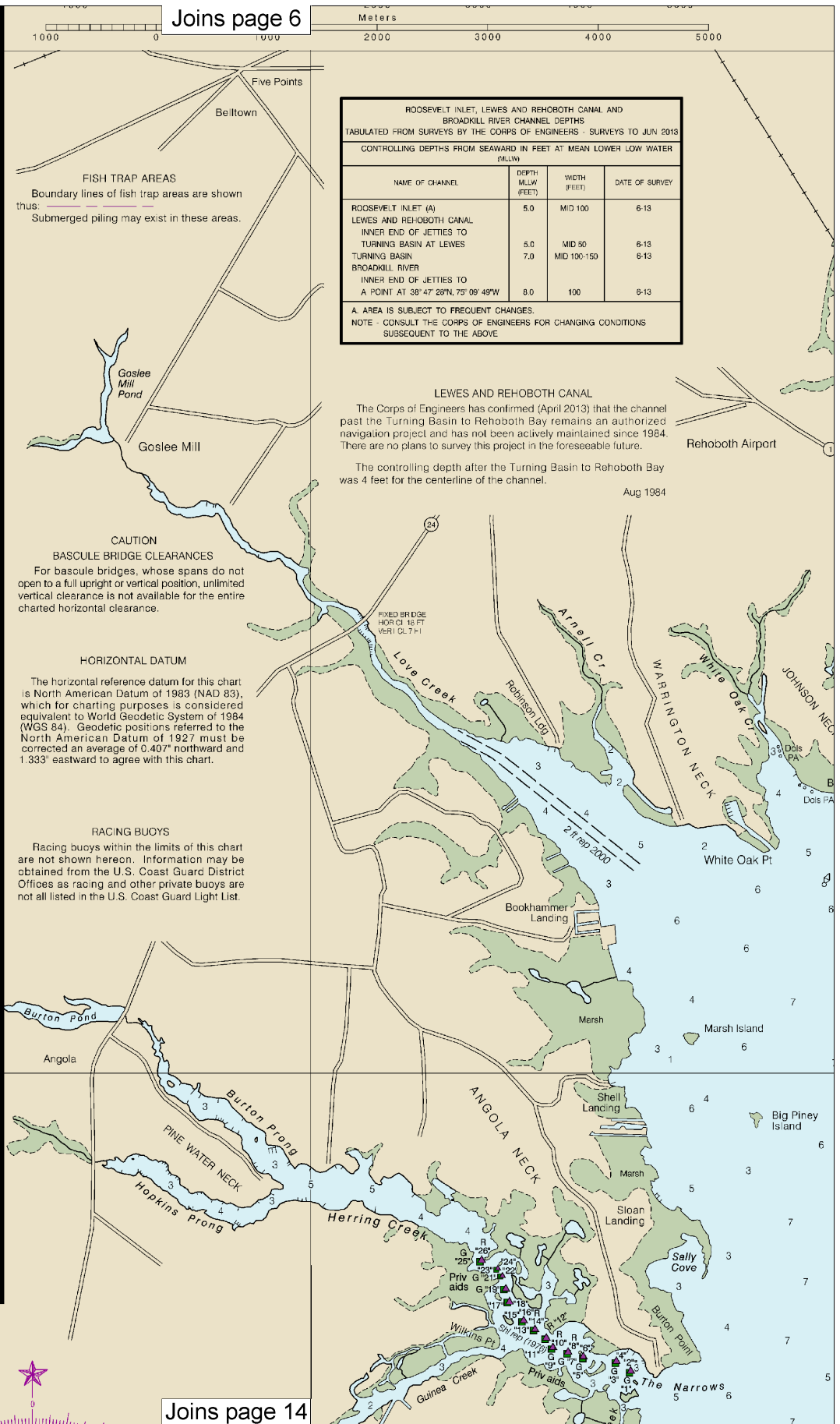
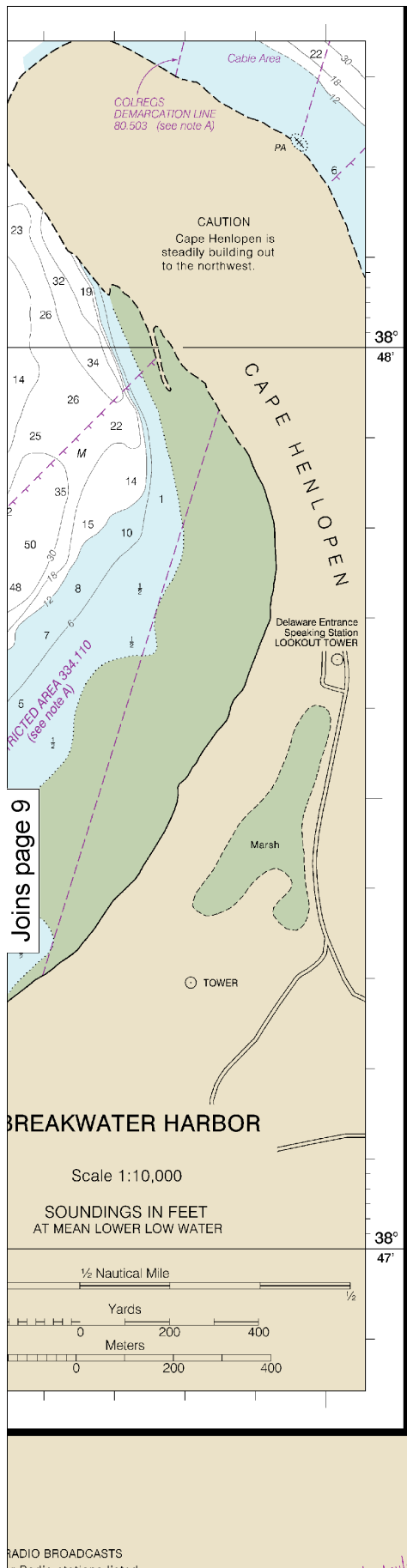
SCALE 1:40,000
Nautical Miles

See Note on page 5.



NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed





DANGER AREA
Area is open to unrestricted surface navigation, but all vessels are cautioned neither to anchor, dredge, trawl, lay cables, bottom, nor conduct any other similar type of operation because of residual danger from mines on the bottom.

**NOTE C
PRECAUTIONARY AREA**
Traffic lanes and the associated precautionary area established at the approaches to Delaware Bay are completely shown on Chart 12214. Traffic within the Precautionary Area may consist of vessels operating between Delaware Bay and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Cruising Area is outlined by a magenta band.

**NOTE D
CAUTION**
The aids to navigation in Rehoboth Bay and Indian River Inlet are unreliable and the remaining portions of fixed aids, damaged or destroyed by ice or coastal storms, may be hazardous to navigation. Extreme caution in navigating these waters is advised. Indian River Inlet Buoys 4 to 17 mark a shifting channel and are not charted.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.
Refer to charted regulation section numbers.

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Salisbury, MD	KEC-92	162.475 MHz
Lewes, DE	WXJ-94	162.550 MHz

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

TIDAL INFORMATION				
PLACE	NAME (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Rehoboth Beach	(38°43'N/75°05'W)	feet	feet	feet
		4.4	4.1	0.2
Breakwater Harbor	(38°47'N/75°07'W)	feet	feet	feet
		4.7	4.2	0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>.

(May 2012)

Additional information can be obtained at nauticalcharts.noaa.gov.

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: ---

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

HEIGHTS

Heights in feet above Mean High Water.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important supplemental information.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
○ (Accurate location) o (Approximate location)

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

29th Ed., Jun. 2012

12216

Last Correction: 6/16/2016. Cleared through:
LNM: 2716 (7/5/2016), NM: 2916 (7/16/2016)

SOUNDINGS

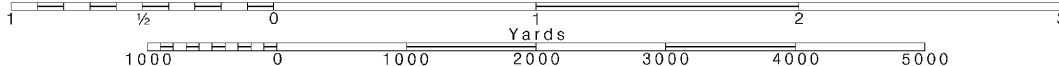
12

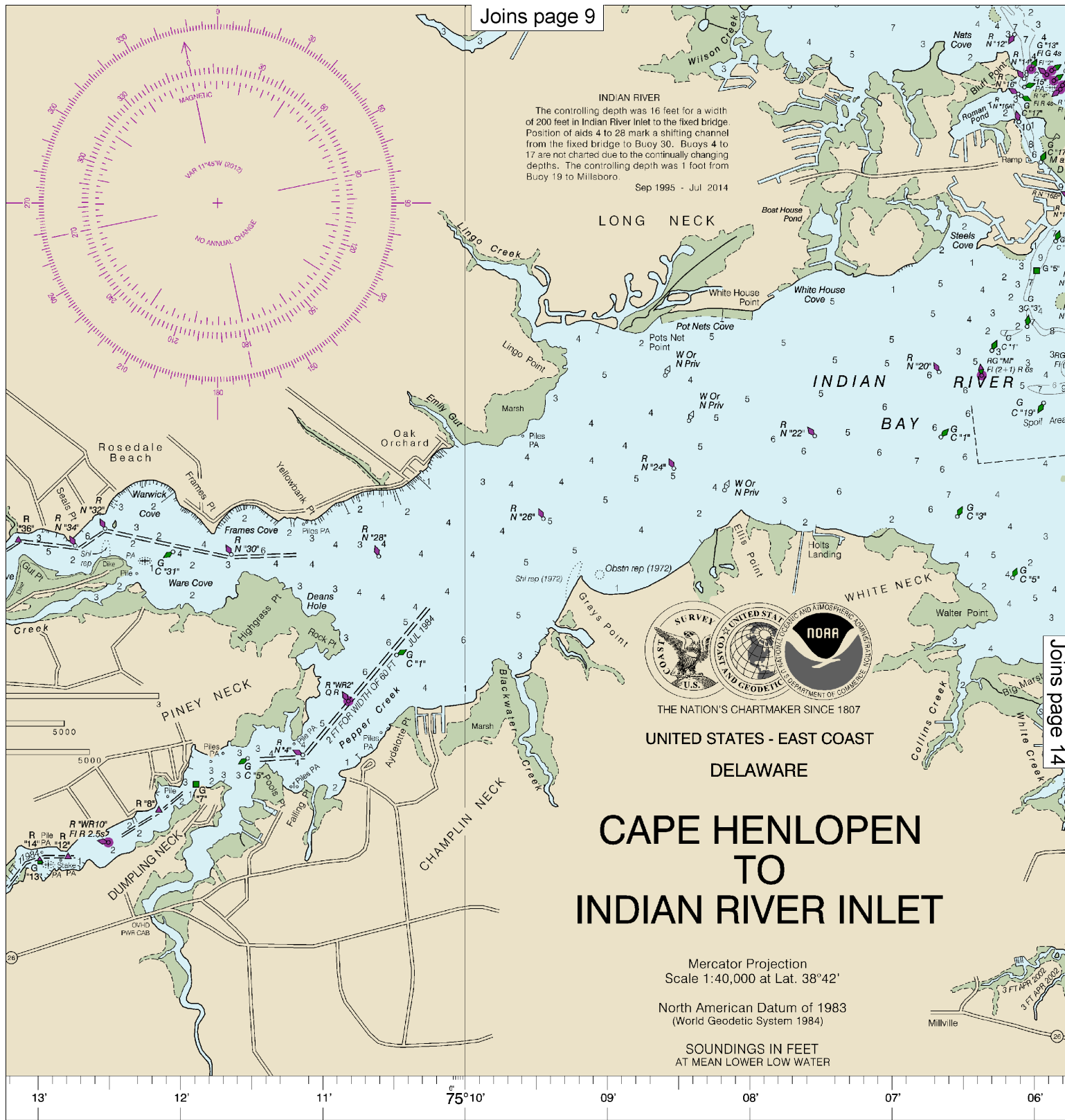
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

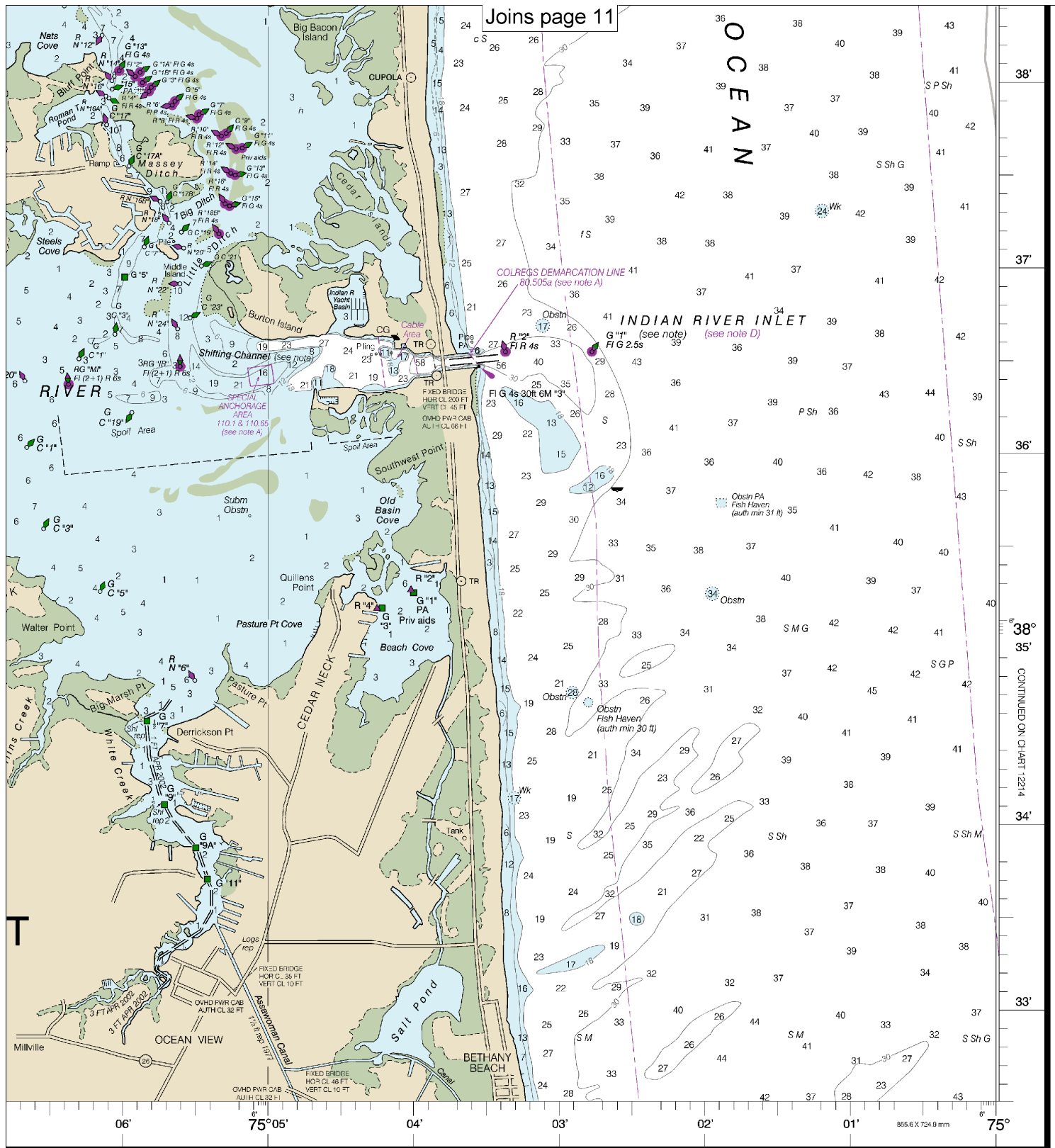
SCALE 1:40,000
Nautical Miles

See Note on page 5.





The top number line represents 1 yard divided into 3 feet. The labels are 1, $\frac{1}{2}$, 0, 1, 2. The bottom number line represents 1 yard divided into 3 feet. The labels are 1000, 0, 1000, 2000, 3000, 4000, 5000. The word "Yards" is written above the bottom line.





VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.